

What is claimed is:

1. A propelling transmission control apparatus for a working vehicle having a hydrostatic stepless transmission, the apparatus comprising:

a variable displacement type hydraulic pump with a swash plate angle variable to vary a displacement thereof;

a change speed control mechanism for converting a displacement of a control device by the operator to a control displacement for varying the swash plate angle of the hydraulic pump;

a main hydraulic motor and an auxiliary hydraulic motor connected in series to the hydraulic pump, the main hydraulic pump being a fixed displacement type having a fixed swash plate angle, the auxiliary hydraulic motor being a variable displacement type having a variable swash plate angle;

a common output shaft for receiving rotational output from the main and auxiliary motors; and

a control piston for varying the swash plate angle of the auxiliary hydraulic motor, the control piston being connected to a pressure oil supply line for supplying the main and auxiliary hydraulic motors with pressure oil, to transmit pressure variations in the pressure oil supply line to the control piston;

wherein the control piston is operable to vary the swash plate angle of the auxiliary hydraulic motor such that the auxiliary hydraulic motor has an increased volume with a pressure increase applied to the control piston.

2. A propelling transmission control apparatus as defined in Claim 1, wherein the change speed control mechanism includes a hydraulic servomechanism having a hydraulic servo valve operable in response to

the displacement of the control device applied as a control input, and a servo cylinder for adjusting the swash plate angle of the hydraulic pump.

5        3.        A propelling transmission control apparatus as defined in Claim 2, wherein the hydraulic servomechanism has, applied thereto as a system pressure therefor, a charge pressure for a change speed hydraulic circuit having the main hydraulic pump and the main and auxiliary hydraulic motors.

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4.        A propelling transmission control apparatus as defined in Claim 1, wherein the control device is operatively connected to a speed adjusting device for an engine, the speed adjusting device being operable to a high speed rotation in response to a shifting operation of the control device to high speed drive, and to a low speed rotation in response to a shifting operation of the control device to low speed drive.

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